# DEPARTMENT of ENVIRONMENTAL SERVICES Water Supply & Pollution Control Division - Biology Bureau

#### LAKE TROPHIC DATA

## MORPHOMETRIC:

Lake: BASIN POND	Lake Area (ha):	11.53
Town: CHATHAM	Maximum depth (m):	3.9
County: Carroll	Mean depth (m):	1.2
River Basin: Saco	Volume (m³):	133000
Latitude: 44°16'15" N	Relative depth:	1.0
Longitude: 71°01'30" W	Shore configuration:	1.54
Elevation (ft): 662	Areal water load (m/yr)	: 44.31
Shore length (m): 1850	Flushing rate (yr <sup>-1</sup> ):	38.30
Watershed area (ha): 746.6	P retention coeff.:	0.38
<pre>% watershed ponded: 0.0</pre>	Lake type: art	ificial

BIOLOGICAL:	9 March 1998	4 August 1997
DOM. PHYTOPLANKTON (% TOTAL) #1	SPARSE - NO DOMINANTS	DINOBRYON 35%
#2		SYNURA 25%
#3		TETRAEDRON 25%
PHYTOPLANKTON ABUNDANCE (units/mL)		
CHLOROPHYLL-A (µg/L)		8.69
DOM. ZOOPLANKTON (% TOTAL) #1	NONE OBSERVED	NAUPLIUS LARVA 71%
#2		
#3		
ROTIFERS/LITER		32
MICROCRUSTACEA/LITER		332
ZOOPLANKTON ABUNDANCE (#/L)		396
VASCULAR PLANT ABUNDANCE		Scat/Common
SECCHI DISK TRANSPARENCY (m)		3.0
BOTTOM DISSOLVED OXYGEN (mg/L)	13.0	4.4
BACTERIA (E. coli, #/100 ml) #1		
#2		
#3		

# SUMMER THERMAL STRATIFICATION:

#### not stratified

Depth of thermocline (m): None Hypolimnion volume (m³): None Anoxic volume (m³): None

CHEMICAL:	Lake: BASIN POND Town: CHATHAM				
	9 March	n 1998	4 August 1997		97
DEPTH (m)	1.5		1.0		3.0
pH (units)	6.0		6.6		6.5
A.N.C. (Alkalinity)	2.2		4.3		4.4
NITRATE NITROGEN	< 0.05		< 0.05		< 0.05
TOTAL KJELDAHL NITROGEN	0.10		0.40		0.40
TOTAL PHOSPHORUS	0.004		0.011		0.015
CONDUCTIVITY (µmhos/cm)	17.5		19.8		
APPARENT COLOR (cpu)	12		40		43
MAGNESIUM			0.41		
CALCIUM			1.9		
SODIUM			1.1		
POTASSIUM			0.26		
CHLORIDE	< 2		< 2		< 2
SULFATE	3		2		2
TN : TP	25		36		27
CALCITE SATURATION INDEX			3.8		

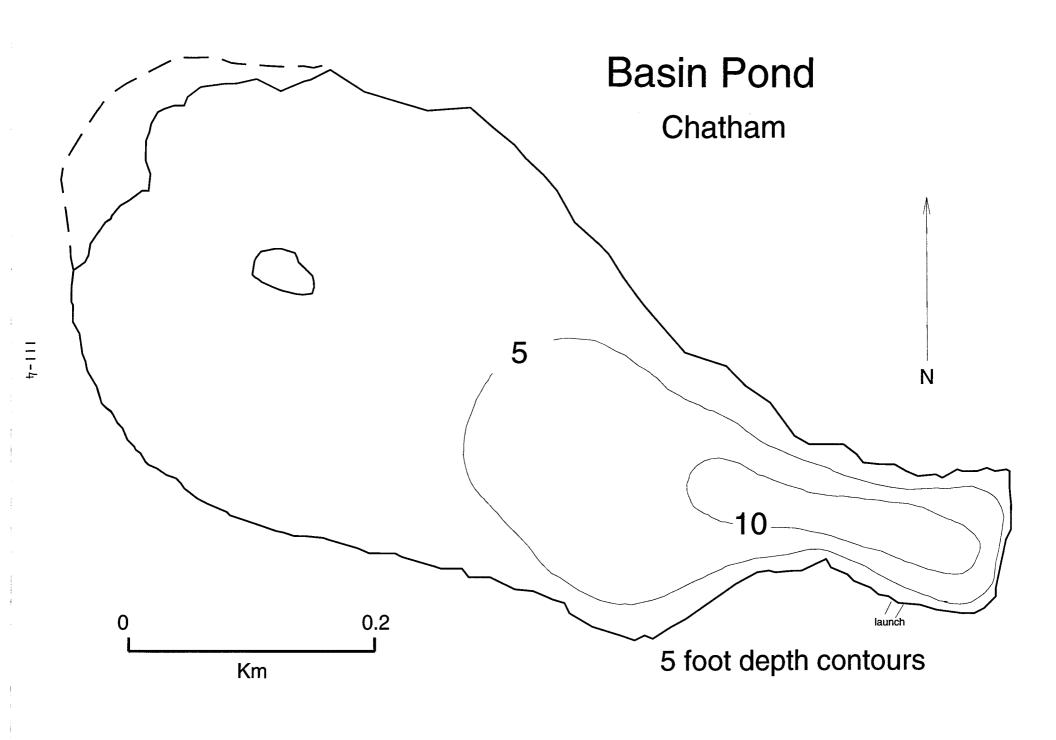
All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 1997

D.O.	s.D.	PLANT	CHL	TOTAL	CLASS
**	3	2	2	7	Meso.

# **COMMENTS:**

- 1. This pond is located in the White Mountain National Forest adjacent to the Basin Campground. It is a man-made pond, created by an earthen dam in 1969. It has a boat launch, wheelchair-accessible fishing dock and picnic area.
- 2. Fish and Game personnel sampled fish populations during the water quality survey.



#### FIELD DATA SHEET

LAKE: BASIN POND TOWN: CHATHAM

WEATHER: SUNNY; LIGHT BREEZE DATE: 08/04/97

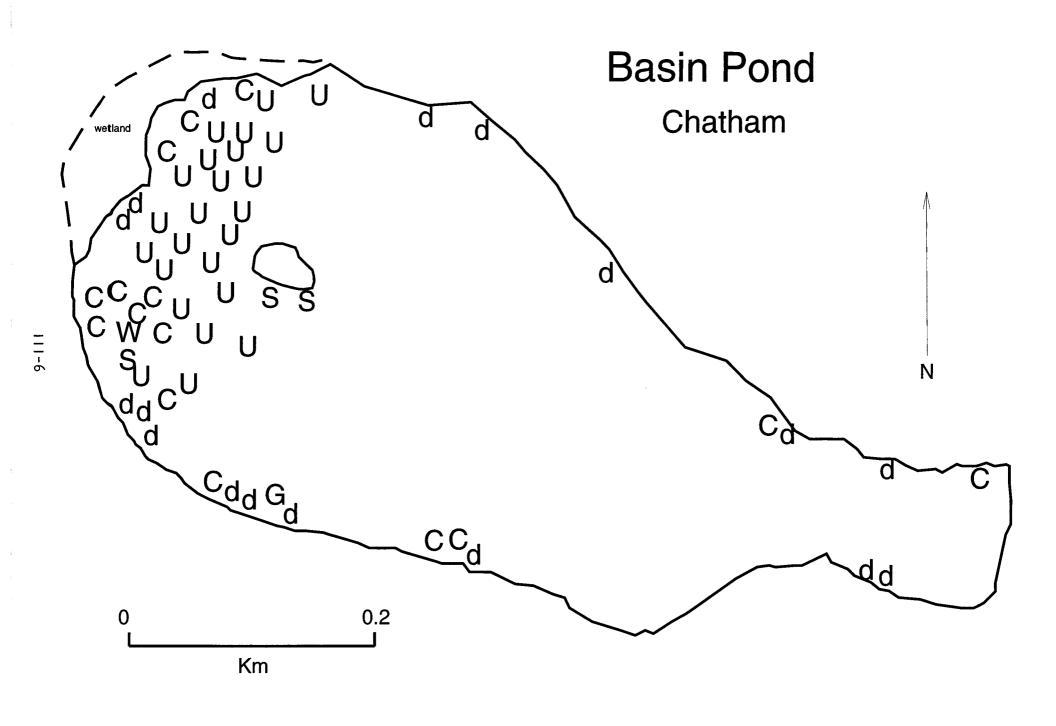
DEPTH (M)	TEMP (°C)	*DISSOLVED OXYGEN	OXYGEN SATURATION
0.1	23.0	8.2	95 %
0.5	23.0	8.2	95 %
1.0	22.5	8.0	92 %
1.5	22.0	7.9	89 %
2.0	22.0	7.9	89 %
2.5	22.0	7.7	87 %
3.0	21.5	5.8	64 %
3.5	21.0	4.4	49 %
		•	

SECCHI DISK (m): 3.0 COMMENTS:

BOTTOM DEPTH (m): 3.8

TIME: 1255

\*Dissolved oxygen values are in mg/L



## AQUATIC PLANT SURVEY

LAKE: BASIN POND TOWN: CHATHAM DATE: 08/04/97

Key	PLANT	ADIMO		
иел	GENERIC	COMMON	ABUNDANCE	
d	Dulichium arundinaceum	Three-way sedge	Scattered	
С	Cyperaceae	Non-flowering sedge	Scattered	
G	Gramineae	Grass family	Sparse	
U	Utricularia	Bladderwort	Scat/Common	
W	Potamogeton	Pondweed	Sparse	
s	Sparganium	Bur reed	Sparse	
			·	

OVERALL ABUNDANCE: Scat/Common

## **GENERAL OBSERVATIONS:**

- 1. Bladderwort formed a mat along the bottom at the western (upstream) end.
- 2. The upper (western) end was shallow and was bordered by a wetland along the inlet stream.